

## **STATEMENT OF BASIS**

Jenkins Brick Company-Montgomery Plant  
Montgomery, Alabama  
Montgomery County  
209-0011

This proposed renewal Title V Major Source Operating Permit is issued under the provisions of ADEM Admin. Code R. 335-3-16. The above named applicant has requested authorization to perform the work or operate the facility shown on the application and drawings, plans and other documents attached hereto or on file with the Air Division of the Alabama Department of Environmental Management, in accordance with the terms and conditions of this permit.

The following are the significant sources of air pollutants at this facility:

- Tunnel Kilns 1 & 2 and Dryer
- Clay Body Preparation
- Sand & Color Coating
- 5-Ton Sand & Color Rotary Blender

The facility is allowed to operate 8760 hours per year. Based on the Title V permit application, this facility is a potential major source for Particulate Matter, Carbon Monoxide, and HAPs (HF and HCl).

### **Tunnel Kilns 1 & 2 and Dryer**

The Tunnel Kiln and Dryer operations consist of sources TK-1, TK-2, and D-1. Emissions of PM, SO<sub>2</sub>, NO<sub>x</sub>, CO, VOC, HCl, & HF are generated from these sources. Emissions of PM, SO<sub>2</sub>, HF and HCL from Tunnel Kilns 1 and 2 are controlled by a Dry Lime Injection Fabric Filter (DIFF-1).

### *Emission Standards*

#### **Opacity Standards**

This source shall not emit particulate matter of an opacity of more than one 6-minute average greater than 20% in any 60-minute period. At no time shall any source discharge a 6-minute average opacity of particulate matter emissions greater than 40%.

ADEM. Code R. 335-3-4-.01(1)

#### **Particulate Matter Emissions Standards**

The particulate emission rate from each kiln in this unit shall not exceed the lesser of Anti-PSD limit of 15.0 lbs/hr or the allowable set by rule 335-3-4-.04.

(Anti-PSD Limit) ADEM Admin. Code R. 335-3-14

The particulate emission rate from the dryer in this unit shall not exceed the lesser of Anti-PSD limit of 4.0 lbs/hr or the allowable set by rule 335-3-4-.04.

(Anti-PSD Limit) ADEM Admin. Code R. 335-3-14

ADEM Admin. Code R. 335-3-4-.04(1)

$$E=3.59(P)^{0.62} \quad (P < 30 \text{ tons/hr})$$

$$E=17.31(P)^{0.16} \quad (P \geq 30 \text{ tons/hr})$$

Where E=Emissions in lb/hr, P=Process weight in tons/hour

### HF Emissions Standards

The total HF emissions from kilns 1 and 2, to remain a minor source of HAP's, shall not exceed 2.055 lbs/hr and 9.9 TPY, as determined by EPA Method 26A of 40 CFR 60, Appendix A.

ADEM Admin. Code R. 335-3-14

### HCL Emissions Standards

The total HCL emissions from kilns 1 and 2, to remain a minor source of HAP's, shall not exceed 2.055 lbs/hr and 9.9 TPY, as determined by EPA Method 26A of 40 CFR 60, Appendix A.

ADEM Admin. Code R. 335-3-14

### *Expected Emissions*

Expected emissions from this unit are based on AP-42 emission factors.

Source #	Pollutant	Emission Rate
TK-1 & TK-2	PM	10.5 lbs/hr each
TK-1 & TK-2	SO <sub>2</sub>	7.97 lbs/hr each
TK-1 & TK-2	NO <sub>x</sub>	8.00 lbs/hr each
TK-1 & TK-2	CO	13.2 lbs/hr each
TK-1 & TK-2	VOC	0.26 lbs/hr each
TK-1 & TK-2	HCl	1.87 lbs/hr each
TK-1 & TK-2	HF	4.07 lbs/hr each
TK-1 & TK-2	PM-10	9.56 lbs/hr each
TK-1 & TK-2	Other HAPs	0.10 lbs/hr each
D-1	PM	4.11 lbs/hr
D-1	CO	6.81 lbs/hr
D-1	NO <sub>x</sub>	2.15 lbs/hr
D-1	VOC	0.66 lbs/hr
DIFF-1	HCL	2.055 lbs/hr
DIFF-1	HF	2.055 lbs/hr

### *Periodic Monitoring*

#### **Opacity and Particulate Matter**

The facility shall perform a visual check, once per week, of the stack associated with this unit. This check shall be performed by a person familiar with Method 9. If visible emissions in excess of 10% opacity are noted, and are not corrected within a period of 1 hour, then a Method 9 must be performed within 4 hours of the observations. Maintenance shall be performed as needed. All corrective action and observed problems shall be recorded.

After the corrective action has been performed, the permittee shall conduct another visual check to ensure that the visible emissions have been reduced.

The facility shall monitor and record the pressure drop across the DIFF once per day. Corrective action shall be performed if the pressure drop falls out of the range established by the facility.

The facility shall maintain free-flowing lime in the feed hopper or silo and to the DIFF at all times for continuous injection systems; maintain the feeder settings at or above the level established during the performance<sup>3</sup> test for continuous injection systems.

The facility shall maintain a record of all inspections, to include visible observations and Method 9 observations performed to satisfy the requirements of periodic monitoring. This shall include all problems observed and corrective actions taken. Each record shall be maintained for a period of 5 years.

The permittee shall submit a written report of exceedence of the stack opacity to the Department semi-annually.

**These units would be subject to CAM since a control device would be used to control emissions of HF and HCL to remain below the major source thresholds for HAP's.**

### **Clay Body Preparation**

The Clay Body Preparation operations consist of sources C-1, G-1, & S-1. Emissions of PM are generated from these sources. No control device is use to control emissions from these sources.

#### *Emission Standards*

##### **Opacity Standards**

Fugitive emissions can not exceed 10 % opacity from any transfer point on belt conveyors or from any other affected facility.

40 CFR 60.670 Subpart OOO

From any crusher, at which a capture system is not used, fugitive emissions can not exhibit greater than 15 % opacity.

40 CFR 60.670 Subpart OOO

From any other source the Opacity is limited to 20%, as determined by a six -minute average. 20% may be exceeded once in a 60-minute period, but may not exceed that designated as 40%.

ADEM. Code R. 335-3-4-.01

##### **Particulate Matter Emissions Standards**

The particulate emission rate from the crusher in this unit shall not exceed the lesser of the Anti-PSD limit of 10 lbs/hr or the allowable set by rule 335-3-4-.04.

ADEM Admin. Code R. 335-3-14

The particulate emission rate from the grinder in this unit shall not exceed the lesser of the Anti-

PSD limit of 2.5 lbs/hr or the allowable set by rule 335-3-4-.04.

ADEM Admin. Code R. 335-3-14

The particulate emission rate from the screens in this unit shall not exceed the lesser of the Anti-PSD limit of 2.5 lbs/hr or the allowable set by rule 335-3-4-.04.

ADEM Admin. Code R. 335-3-14

ADEM Admin. Code R. 335-3-4-.04(1)

$$E=3.59(P)^{0.62} \quad (P < 30 \text{ tons/hr})$$

$$E=17.31(P)^{0.16} \quad (P \geq 30 \text{ tons/hr})$$

Where E=Emissions in lb/hr, P=Process weight in tons/hour

#### *Expected Emissions*

Expected emissions from this unit are based on AP-42 emission factors.

Source #	Pollutant	Emission Rate
C-1	PM	0.045 lbs/hr
C-1	PM-10	0.045 lbs/hr
G-1	PM	1.93 lbs/hr
G-1	PM-10	0.18 lbs/hr
S-1	PM	1.93 lbs/hr
S-1	PM-10	0.18 lbs/hr

#### *Periodic Monitoring*

##### **Opacity and Particulate Matter**

An observation of each emission point associated with this source will be accomplished at least weekly. If any visible emissions are noted during the above-referenced visual checks, corrective action shall be initiated within 2 hours to reduce the emissions.

After the corrective action has been performed, the permittee shall conduct another visual check to ensure that the visible emissions have been reduced.

Records of all visual checks and corrective actions taken shall be maintained in a form suitable for inspection and kept on site for a period of at least 5 years.

The permittee shall submit a written report of exceedences to the Department semi-annually.

**This unit is not subject to Compliance Assurance Monitoring. Its potential pre-controlled emissions are less than major source thresholds.**

## Sand & Color Coating

The Sand & Color Coating operations consist of the source C-2. Emissions of PM are generated from the source. A baghouse is used to control emissions from source C-2.

### *Emission Standards*

#### **Opacity Standards**

This source shall not emit particulate matter of an opacity of more than one 6-minute average greater than 20% in any 60-minute period. At no time shall any source discharge a 6-minute average opacity of particulate matter emissions greater than 40%.

ADEM. Code R. 335-3-4-.01(1)

#### **Particulate Matter Emissions Standards**

The particulate emission rate from the sand & color coating shall not exceed the lesser of the Anti-PSD limit of 1 lb/hr or the allowable set by rule 335-3-4-.04.

ADEM Admin. Code R. 335-3-14-.04

ADEM Admin. Code R. 335-3-4-.04(1)

$$E=3.59(P)^{0.62} \text{ (P < 30 tons/hr)}$$

$$E=17.31(P)^{0.16} \text{ (P} \geq 30 \text{ tons/hr)}$$

Where E=Emissions in lb/hr, P=Process weight in tons/hour

### *Expected Emissions*

Expected emissions from this unit are based on engineering estimates and a control efficiency of 99%.

Source #	Pollutant	Emission Rate
C-2	PM	0.02 lbs/hr

### *Periodic Monitoring*

#### **Opacity and Particulate Matter**

The facility shall perform a visual check, once per week, of the stack associated with this unit. This check shall be performed by a person familiar with Method 9. If visible emissions in excess of 10% opacity are noted, and are not corrected within a period of 1 hour, then a Method 9 must be performed within 4 hours of the observations. Maintenance shall be performed as needed. All corrective action and observed problems shall be recorded.

After the corrective action has been performed, the permittee shall conduct another visual check to ensure that the visible emissions have been reduced.

The facility shall maintain a record of all inspections, to include visible observations and Method 9 observations performed to satisfy the requirements of periodic monitoring. This shall include all problems observed and corrective actions taken. Each record shall be maintained for a period of 5 years.

The permittee shall submit a written report of exceedence of the stack opacity to the Department semi-annually.

**This unit is not subject to Compliance Assurance Monitoring. Its potential pre-controlled emissions are less than major source thresholds.**

### **5-Ton Sand & Color Rotary Blender**

The 5-Ton Sand & Color Rotary Blender operation consist of source RB-1. Emissions of PM are generated from the source. A baghouse is used to control emissions from source RB-1.

#### *Emission Standards*

##### **Opacity Standards**

This source shall not emit particulate matter of an opacity of more than one 6-minute average greater than 20% in any 60-minute period. At no time shall any source discharge a 6-minute average opacity of particulate matter emissions greater than 40%.

ADEM. Code R. 335-3-4-.01(1)

##### **Particulate Matter Emissions Standards**

The particulate emission rate from the 5-Ton sand & color rotary blender operation shall not exceed the lesser of Anti-PSD limit 0.10 lbs/hr or the allowable set by rule 335-3-4-.04.

(Anti-PSD Limit) ADEM Admin. Code R. 335-3-14-.04

$$E=3.59(P)^{0.62} \text{ (P < 30 tons/hr)}$$

$$E=17.31(P)^{0.16} \text{ (P} \geq 30 \text{ tons/hr)}$$

Where E=Emissions in lb/hr, P=Process weight in tons/hour

#### *Expected Emissions*

Expected emissions from this unit are based on engineering estimates and a control efficiency of 99%.

Source #	Pollutant	Emission Rate
RB-1	PM	0.04 lbs/hr

#### *Periodic Monitoring*

##### **Opacity and Particulate Matter**

The facility shall perform a visual check, once per week, of the stack associated with this unit. This check shall be performed by a person familiar with Method 9. If visible emissions in excess of 10% opacity are noted, and are not corrected within a period of 1 hour, then a Method 9 must be performed within 4 hours of the observations. Maintenance shall be performed as needed. All corrective action and observed problems shall be recorded.

After the corrective action has been performed, the permittee shall conduct another visual check to ensure that the visible emissions have been reduced.

The facility shall maintain a record of all inspections, to include visible observations and Method 9 observations performed to satisfy the requirements of periodic monitoring. This shall include all problems observed and corrective actions taken. Each record shall be maintained for a period of 5 years.

The permittee shall submit a written report of exceedence of the stack opacity to the Department semi-annually.

**This unit is not subject to Compliance Assurance Monitoring. Its potential pre-controlled emissions are less than major source thresholds.**

Based on the information provided in Jenkins Brick Montgomery Plant's Major Source Operating Permit application for renewal, I recommend that, pending the 30-day public comment period and 45-day EPA review period, Major Source Operating Permit 209-0011 be issued to Jenkins Brick Montgomery Plant. If the Title V conditions are adhered to by Jenkins Brick Montgomery Plant the facility should be in compliance with all applicable State and Federal Air Pollution regulations.

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Wendy Hall  
Industrial Minerals Section  
Energy Branch  
Air Division

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Date